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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,139	07/03/2003	Mu-Tsang Lin	24061.70	6821
27683	7590	08/10/2005	EXAMINER GUTIERREZ, ANTHONY	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			ART UNIT 2857	PAPER NUMBER

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,139

Applicant(s)

LIN ET AL.

Examiner

Anthony Gutierrez

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/6/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it contains the phrase "The present disclosure provides". There is also a period missing at the end of the first sentence. The objection would be removed if the phrase were to be deleted and the Abstract were corrected for punctuation. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Berg et al. (United States Patent Application Publication US 2002/0022969 A1).

As to claims 1, 9, and 17, Berg et al. discloses providing information to repair a semiconductor tool, the method comprising (see Abstract): receiving a tool alarm when a tool problem occurs (lines 1-6); upon receipt of the tool alarm, providing tool alarm information to a database to determine a problem, cause, and action (lines 6-

13); checking if the tool alarm information matches an item in a standard operation procedures table of the database (lines 13 and 14); if the tool alarm information matches an item in the table, providing standard operation procedures information to a tool alarm message; and sending the tool alarm message to a remote terminal for use in repairing the semiconductor tool (lines 14-17) (See also, Figs. 7 and 9).

As to claims 2-6, Berg et al. discloses the database further includes tables for providing routine maintenance information for the specified semiconductor tool and for providing a predetermined operating procedure for maintaining the specified semiconductor tool, including instructions for identifying maintenance actions to be performed on the specified semiconductor tool (paragraph 0041, lines 15-42).

As to claim 7, Berg et al. discloses sending the identified cause and action information to a mobile terminal (paragraph 0041, lines 4-9 and lines 26-32).

As to claims 8, and 10-12, Berg et al. discloses checking if the tool alarm information matches an item in a requirements table of the database based on pre-collected knowledge about the semiconductor tool; if the tool alarm information matches an item in the requirements table, providing requirements information to the message, including determining a problem, cause, and action associated with the tool alarm information by searching a problem tree, cause tree and action tree in the database; and providing problem, cause, and action information to the message (paragraphs 0029, 0035, and 0046, See also Fig. 9).

As to claims 13 and 14, Berg et al. discloses updating the database with experiential knowledge provided from a plurality of different entities working on the semiconductor tool (paragraph 0036).

As to claims 15 and 16, Berg et al. discloses updating the database with manufacture knowledge provided from one or more manufacture or repair facilities associated with the semiconductor tool (paragraph 0008).

As to claims 18 and 19, Berg et al. discloses at least one group for software problems, including a subgroup for automatic control system problems, and another group for temperature-related problems (paragraph 0023, lines 8-11 and paragraph 0026 where the SCADA system is related to the software problems, as distinguished from the individual equipment unit).

As to claims 20 and 23-25, Berge et al. discloses the group for temperature-related problems includes a subgroup for valve obstructions (paragraphs 0026 and 0042, lines 7-12).

As to claim 21, Berg et al. discloses a subgroup for user-defined problems (paragraph 0036, lines 24-34).

As to claim 22, Berg et al. discloses addressing statistical process control problems (paragraph 0012, lines 14-19).

As to claims 26-28, Berg et al. discloses a subgroup related to routine valve maintenance actions, including a subgroup related to recently added valve maintenance actions, including an interface for receiving a plurality of valve maintenance actions from a maintenance entity that previously worked on the semiconductor tool, including the recently added valve maintenance actions (paragraph 0041, lines 18-42).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

United States Patents

US 6,721,695 B1 to Chen et al. teaches a method for evaluating the runability and sensitivity of a photomask inspection tool.

US 6,714,884 B2 to Dor et al. teaches a method for providing communication between an effect source identifier and a tool data collection and control system for executing a prediction model of possible failure in the tool elements.

US 6,618,692 B2 to Takahashi et al. teaches a remote diagnostic system and method for semiconductor manufacturing equipment that includes several elements of the Applicant's claimed invention.

United States Patent Application Publications

US 2005/0010323 A1 to Cocciadiferro et al. teaches an operational control system for providing remote monitoring of a manufacturing device including a database interface.

US 2004/0053429 A1 to Muranaka teaches a method for manufacturing semiconductor integrated circuit devices that includes reference to a central database.

US 2003/0220768 A1 to Perry et al. teaches a diagnostic method for integrated remote tool access, data collection, and control.

US 2003/02004528 A1 to Su et al., teaches a semiconductor wafer manufacturing execution system that includes reference to first and second databases.

US 2003/0061212 A1 to Smith et al. teaches a method for analyzing wafer manufacturing data with reference to database tracking and correlation tools.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Gutierrez whose telephone number is (571) 272-2215. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Anthony Gutierrez

8/4/05


MARC S. HOFF
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